Message

From: Schulman, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=35D7024F00644B3D8B5DBA4940506834-SCHULMAN, M]
Sent: 3/30/2022 8:22:57 PM
To: J. Wesley Hawthorne [hawthornej@locustec.com]; Lilian Abreu (abreu.lilian@epa.gov) [abreu.lilian@epa.gov]
CC: 'Shau-Luen Barker' [shauluen.barker@philips.com]; Cynthia Woo (cynthia.woo@aptim.com) [cynthia.woo@aptim.com]
Subject: RE: Follow-up on Signetics FFS Work Plan
Attachments: 2019-10-31 Philips Signetics FFS WP revised.pdf

Hi Wes,

As a reminder, below is an email I sent 10/28/19 with general feedback on the Signetics FFS, which was prior to the attached 2019-10-31 FFS Work Plan submittal to EPA.

Michael

From: Schulman, Michael
Sent: Monday, October 28, 2019 16:12
To: J. Wesley Hawthorne <hawthornej@locustec.com>; 'Shau-Luen Barker' <shauluen.barker@philips.com>
Cc: Caleb Shaffer (Shaffer.Caleb@epa.gov) <Shaffer.Caleb@epa.gov>; Cynthia Woo (cynthia.woo@aptim.com) <cynthia.woo@aptim.com>
Subject: RE: Follow-up on Signetics FFS Work Plan

Hi Wes,

Below is feedback on the Focussed Feasibility Study (FFS) outline (attached) you submitted to the EPA last month. The feedback are not comments that you need to respond to, but meant as a reminder to what the EPA will be looking for in the FFS. The FFS is due this week on October 31.

FFS Outline Heading Number

3.1 Conceptual Site Model Update
The current CSM is dated and weak in the understanding of the heterogenic hydrogeologic properties of subsurface materials. The proposed ISB effort needs to account for the heterogenic hydrogeologic properties in design of injection point density, injection interval, and volume of substrate. Design parameters should be based upon an updated CSM that assimilates and spatially details the permeable transmissive channel pathways and low permeable zones as initially identified in the 1996 EMCON and 1997 Einarson and the Fowler, & Watson Reports for the Signetics Site in accordance with the EPA Best Practices for Environmental Site Management A Practical Guide for Applying Environmental Sequence Stratigraphy to Improve Conceptual Site Models (EPA, 2017). The FFS should include lithofacies maps in the report of the targeted treatment area.

3.1.4.3 Contaminant Migration
The FFS will need to discuss the known preferred pathways and data gaps.

3.2.2 Preliminary Hydraulic Containment Evaluation (Summary of Relevant 2018 Annual Report Remedial Effectiveness Findings)
The capture zone evaluation must be consistent with the updated FFS CSM and present the hydrogeology parameter values and other data values used to determine the remedial capture zone. The FFS hydrogeology evaluation must be sufficiently developed to determine the capture zone for extraction wells given that greater than two orders of

magnitude in transmissivity is expected based upon the heterogeneity of the fluvial deposits present beneath the site (e.g., channel vs. overbank deposits).

5.4 General Response Actions

This section should include three activities: (1) identification of general response actions, (2) identification of technology types, and (3) identification and screening of technology process options as discussed in Section 4.1.2 of the EPA Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA (1988). General response actions are further defined to specify remedial technology types, and under each type, specific technology process options. For example, for groundwater:

- General response action: Treatment
- Remedial technology type: Biological treatment
- Process options: Bioaugmentation, bioventing, biosparging, bioslurping, and phytoremediation

The screening to determine applicable methods, which may then be used to develop alternatives, should be performed on the specific process options identified.

Thank you,
Michael

From: Shaffer, Caleb <Shaffer.Caleb@epa.gov>
Sent: Tuesday, September 17, 2019 6:58 AM
To: Schulman, Michael <Schulman.Michael@epa.gov>
Subject: FW: Follow-up on Signetics FFS Work Plan

Apologies in advance for the email influx, but will send you a number of items reflecting current status. We can meet later this morning and I can give you an overview of the site. This relates to the Philips source site (Signetics), at which we are overseeing an FFS.

From: J. Wesley Hawthorne <hawthornej@locustec.com>
Sent: Thursday, September 12, 2019 4:25 PM
To: Shaffer, Caleb <Shaffer.Caleb@epa.gov>
Cc: Barker, Shau-Luen <ShauLuen.Barker@philips.com>; Africa Espina <guzuna@locustec.com>; David Wright <wrightd@locustec.com>; Nicole Look <lookn@locustec.com>; Woo, Cynthia <cynthia.woo@aptim.com>; Nancy-Jeanne LeFevre <LeFevren@locustec.com>; Perkins, James <james.perkins@aptim.com>
Subject: Follow-up on Signetics FFS Work Plan

Caleb:

Thank you for the discussion on 8/22 regarding the FFS Work Plan. Attached are meeting minutes from that discussion.

One of the action items from that meeting was for Locus to review the preliminary feedback and EPA guidance and to propose a submittal date for an updated FFS Work Plan. We have identified the additional elements requested by EPA and expanded the FFS Work Plan outline to accommodate these items. Attached is an updated outline for review. Please let us know if this updated outline would meet EPA's requirements for the FFS Work Plan. In the meantime, we have already started on updated text, and are working towards a revised FFS Work Plan submittal by 10/31.

Also, in support of these efforts, we have been assembling the historical RI/FS documents that are relevant to this project. We understand that Aptim has also been reviewing document sources, so we'd like to coordinate efforts and compile these documents in the online portal we have set up for this project, so the entire project team has access. We will continue to coordinate with Aptim on this initiative.

Please let me know if you have any questions or concerns.

Thank you,

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